

### **ABSTRACT**

A light-emitting device is provided. The device is with increased current efficiency, having a plurality of emitter presented between an anode and a cathode. Each of the emitters may be allowed for projecting a corresponding color light source and stacked in turn between the cathode and anode. When a supplied voltage is initialized to operate, the color light sources generated by the respective emitters may be added, such that the current density passing through the element may be reduced without degrading the whole brightness, resulting in not only a better current efficiency, bit also a reduced working temperature as well as a prolonged service life of the element.